Claim Amendments

Pursuant to revised 37 CFR 1.121, a complete listing of all claims in the application follows along with a parenthetical expression of the status of each claim. No new matter has been added.

1. (Amended) In a fluid/liquid storage tank with a sidewall and a floating roof floating atop the fluid/liquid, an improved grounding system comprising:

a reel connected to the sidewall; and

said reel having a low impedance conductor for lightning related frequencies connected to the floating roof.

2. (Original) The improvement of claim 1, wherein the reel further comprises a take up spool which keeps any slack out of the conductor and maintains a shortest fractional length.

3. (Original) The improvement of claim 2, wherein the take up spool further comprises a spring.

4. (Original) The improvement of claim 1, wherein the wire further comprises a bare braided copper cable.

5. (Original) The improvement of claim 1, wherein the reel further comprises a base having bolts secured to the tank wall.

6. (Original) The improvement of claim 4, wherein the bare braided copper cable further comprises a lug having a bolt secured to the floating roof.

7. (Original) The improvement of claim 6, wherein the impedance of the lug and bolt, plus the braided copper cable plus the reel is about one ohm or less.

8. (Amended) A grounding system for a storage tank having a floating roof, said grounding system comprising:

a wire having an end connected to the floating roof;

said wire having a second end wound around a spool in a reel;

said reel having a grounded connection to a wall segment of the tank; and

said wire having a low impedance for lightning related frequencies.

9. (Original) The grounding system of claim 8, wherein the wire further comprises a flat braided copper conductor.

10. (Original) The grounding system of claim 9, wherein the spool further comprises a take up mechanism to minimize slack in the conductor.

11. (Original) The grounding system of claim 10, wherein the total impedance of the system is about five ohms or less.

12. (Amended) A grounding system for a tank with a floating roof, said grounding system comprising:

means for taking slack out of a cable connected from a floating roof to an upper segment of a tank wall, and thereby maintaining a minimum length; and

said cable having a low impedance for lightning related frequencies.

13. (Previously presented) The grounding system of claim 12, wherein the means of taking slack out further comprises a reel having a take up spool.

14. (Original) The grounding system of claim 13, wherein the take up spool further comprises a spring functioning to constantly pull up on the cable.

15. (Original) The grounding system of claim 13, wherein the cable further comprises a braided conductor.

16. (Original) The grounding system of claim 15, wherein the system has a total impedance of about five ohms or less.

17. (Original) The grounding system of claim 15, wherein the braided conductor has a bolt connection to the floating roof, and the reel has a base with a bolt connection to the tank wall.

18. (Amended) In a fluid/liquid storage tank with a sidewall and a floating roof floating atop the fluid/liquid, an improved grounding system comprising:

a reel connectable to the sidewall; and

said reel having a low impedance conductor for lightning related frequencies connectable to the floating roof.

19. (Previously presented) The improvement of claim 18, wherein the reel further comprises a take up spool which keeps any slack out of the conductor and maintains a shortest fractional length.

20. (Previously presented) The improvement of claim 19, wherein the take up spool further comprises a spring.

21. (Previously presented) The improvement of claim 18, wherein the wire further comprises a bare braided copper cable.

22. (Previously presented) The improvement of claim 18, wherein the reel further comprises a base having bolts secured to the tank wall.

23. (Previously presented) The improvement of claim 21, wherein the bare braided copper cable further comprises a lug having a bolt secured to the floating roof.

24. (Previously presented) The improvement of claim 23, wherein the impedance of the lug and bolt, plus the braided copper cable plus the reel is about one ohm or less.

25. (Previously presented) The apparatus of claim 1 further comprising a plurality of said reels and low impedance conductors connected to the sidewall.

26. (Previously presented) The apparatus of claim 8 further comprising a plurality of said reels and wires.

27. (Previously presented) The apparatus of claim 12 further comprising a plurality of said means for taking slack out of a cable.

28. (Previously presented) The apparatus of claim 18 further comprising a plurality of said reels.

29. (New) The improvement of claim 2, wherein the wire further comprises a bare braided copper cable, and wherein the total impedance of said improvement is about five ohms or less.

30. (New) The improvement of claim 19, wherein the wire further comprises a bare braided copper cable, and wherein the total impedance of the improved grounding system is about five ohms or less.